

## EXHIBIT 1

DECEMBER 2008

### CURRICULUM VITAE

#### I. PERSONAL

Christopher Cox, Ph. D.  
422 Hoffman Road  
Harleysville, PA 19438  
(267) 210-3474

#### II. EDUCATION

Johns Hopkins University, Baltimore, MD 1999  
Organic Chemistry Ph. D.

Towson State University, Towson, MD 1994  
Chemistry B. S. Summa Cum Laude

#### III MERCK/MRL EMPLOYMENT HISTORY

Medicinal Chemistry

Sr. Research Chemist	11/2001 - 9/2004
Research Fellow	10/2004 - 3/2008
Sr. Research Fellow	4/2008 - Present

#### IV. NON-MERCK EMPLOYMENT HISTORY

#### V. ACADEMIC EXPERIENCE

NIH Postdoctoral Fellow	Columbia University, New York, NY	1999 - 2001
Graduate Student	Johns Hopkins University, Baltimore, MD	1994 - 1999
Undergrad. Res. Asst.	Towson State U., Towson, MD	1994
NSF-REU Fellow	University of Maryland, College Park, MD	1993

#### VI. TRAINING

## VII. SOCIETY MEMBERSHIPS

Sigma Xi Member  
American Chemical Society

## VIII. ACADEMIC AND PROFESSIONAL HONORS

NIH Postdoctoral Fellowship	1999
Kilpatrick Graduate Fellowship	1998
ACS, Div. Of Organic Chem., Graduate Fellowship	1997
Ernest M. Marks Fellowship	1997
ACS, MD Section, Outstanding Student Award	1994
NSF-REU Fellowship	1993
Merck Index Achievement Award in Organic Chem.	1992

## IX. PUBLICATIONS AND PATENTS

### PUBLICATIONS

1. "Brazilian Baccharis Toxins: Livestock Poisoning and the Isolation of Macrocyclic Trichothecene Glucosides."  
B. Jarvis, S. Wang, C. Cox, M. Rao, V. Philip, M. Varaschin, C. Barros  
*Natural Toxins* **1996**, *4*, 58-71.
2. "Copper(II)-Catalyzed Amide Isomerization: Evidence for N-Coordination."  
C. Cox, D. Ferraris, N. N. Murthy, T. Lectka  
*J. Am. Chem. Soc.* **1996**, *118*, 5332-5333
3. "Crystal Structure and Triboluminescence 2. 9-Anthracenecarboxylic Acid and its Esters."  
L. Sweeting, A. Rheingold, J. Gingerich, A. Rutter, R. Spence, C. Cox, T. Kim  
*Chem. Mater.* **1997**, *9*, 1103-1115.
4. "Intramolecular Catalysis of Amide Isomerization."  
C. Cox, V. G. Young Jr., T. Lectka  
*J. Am. Chem. Soc.* **1997**, *119*, 2307-2308.
5. "Solvent Effects on the Barrier to Rotation in Carbamates."  
C. Cox, T. Lectka  
*J. Org. Chem.* **1998**, *63*, 2426-2427.
6. "Orthogonal" Lewis Acids: Catalyzed Ring Opening and Rearrangement of Acyl Aziridines."  
D. Ferraris, W. J. Drury III, C. Cox, T. Lectka  
*J. Org. Chem.* **1998**, *63*, 4568-4569

## **PUBLICATIONS (continued)**

7. "Intramolecular Catalysis of Amide Isomerization: Kinetic Consequences of the 5-NH--N<sub>H</sub> Interaction in Prolyl Peptides."  
C. Cox, T. Lectka  
*J. Am. Chem. Soc.* **1998**, 120, 10660-10668.
8. "Diastereo- and Enantioselective Alkylation of  $\alpha$ -Imino Esters with Enol Silanes catalyzed by R-Tol-BINAP-CuClO<sub>4</sub><sup>+</sup>(MeCN)<sub>2</sub>."  
D. Ferraris, B. Young, C. Cox, W. J. Drury III, T. Dudding, T. Lectka  
*J. Org. Chem.* **1998**, 63, 6090-6091.
9. "A Novel Synthesis of  $\alpha$ -Amino Acid Derivatives through Catalytic Enantioselective Ene Reactions of  $\alpha$ -Imino Esters."  
W. J. Drury III, D. Ferraris, C. Cox, B. Young, T. Lectka  
*J. Am. Chem. Soc.* **1998**, 120, 11006-11007.
10. "Strong Hydrogen Bonding to the Amide Nitrogen of an "Amide Proton Sponge": Consequences for Structure and Reactivity."  
C. Cox, H. Wack, T. Lectka  
*Angew. Chem., Int. Ed. Engl.* **1999**, 38, 798-800.
11. "Nucleophilic Catalysis of Amide Isomerization."  
C. Cox, H. Wack, T. Lectka  
*J. Am. Chem. Soc.* **1999**, 121, 7963-7964.
12. "Intramolecular Acid-Catalyzed Amide Isomerization."  
C. Cox, T. Lectka  
*Org. Lett.* **1999**, 1, 749-752.
13. "Synthetic Catalysis of Amide Isomerization."  
C. Cox, T. Lectka  
*Acc. Chem. Res.* **2000**, 33, 849-858.
14. "Synthesis of the Functionalized Tricyclic Core of Lactonamycin by Oxidative Dearomatization."  
C. Cox, S. J. Danishefsky  
*Org. Lett.* **2000**, 2, 3493-3496.
15. "Concise Synthesis of a Lactonamycin Model System by Diastereoselective Dihydroxylation of a Highly Fuctionalized Naphthoquinone."  
C. Cox, S. Danishefsky  
*Org. Lett.* **2001**, 3, 2899-2902;

## **PUBLICATIONS (continued)**

16. "Catalytic, Enantioselective Alkylation of  $\alpha$ -Imino Esters: The Synthesis of Nonnatural  $\alpha$ -Amino Acid Derivatives."  
D. Ferraris, B. Young, C. Cox, T. Dudding, W. Drury III, L. Ryzhkov, A. Taggi, T. Lectka  
*J. Am. Chem. Soc.* **2002**, *124*, 67-77.
17. "Studies Directed Toward the Total Synthesis of Lactonamycin: Control of the Sense of Cycloaddition of a Quinine Through Directed Intramolecular Catalysis."  
C. Cox, T. Siu, S. Danishefsky  
*Angew. Chem., Int. Ed. Engl.* **2003**, *42*, 5625-5629.
18. "Total Synthesis of Lactonamycinone."  
T. Siu, C. Cox, S. Danishefsky  
*Angew. Chem., Int. Ed. Engl.* **2003**, *42*, 5629-5634.
19. "Two-Step Synthesis of  $\beta$ -Alkylchalcones and Their Use in the Synthesis of 3,5-Diaryl-5-Alkyl-4,5-Dihydropyrazoles."  
C. Cox, M. Breslin, B. Mariano  
*Tetrahedron Lett.* **2004**, *45*, 1489-1493.
20. "Kinesin Spindle Protein (KSP) Inhibitors. Part 1: The Discovery of 3,5-diaryl-4,5-dihydropyrazoles as Potent and Selective Inhibitors of the Mitotic Kinesin KSP."  
C. Cox; M.J. Breslin; B.J. Mariano; P.J. Coleman; C.A. Buser; E.S. Walsh; K. Hamilton; H.E. Huber; N.E. Kohl; M. Torrent; Y. Yan; L.C. Kuo; G.D. Hartman  
*Bioorg. & Med. Chem. Lett.* **2005**, *15*, 2041-2045.
21. "Kinesin Spindle Protein (KSP) Inhibitors. Part 4: Structure-based Design of 5-alkylamino-3,5-diaryl-4,5-dihydropyrazoles as Potent, Water-soluble Inhibitors of the Mitotic Kinesin KSP."  
C. Cox; M. Torrent, M.J. Breslin; B.J. Mariano; D.B. Whitman, P.J. Coleman; C.A. Buser; E.S. Walsh; K. Hamilton; M.D. Schaber, R.B. Lobell, W. Tao, V.J. South; N.E. Kohl; Y. Yan; L.C. Kuo; T. Prueksaritanont; D.E. Slaughter; C.Li; E. Mahan; B. Lu; G.D. Hartman  
*Bioorg. & Med. Chem. Lett.* **2006**, *16*, 3175-3179.

## **PUBLICATIONS (continued)**

22. "Kinesin Spindle Protein (KSP) Inhibitors. Part V: Discovery of 2-Propylamino-2,4-Diaryl-2,5-Dihydropyrroles as Potent, Water-Soluble KSP Inhibitors, and Modulation of their Basicity by  $\beta$ -Fluorination to Overcome Cellular Efflux by P-Glycoprotein."  
C. Cox; M.J. Breslin; D.B. Whitman, P.J. Coleman; R.M. Garbaccio; M.E. Fraley; M.M. Zrada; C.A. Buser; E. S. Walsh; K. Hamilton; R. B. Lobell, W. Tao; M.T. Abrams; V.J. South; H.E. Huber; N.E. Kohl, G.D. Hartman.  
*Bioorg. & Med. Chem. Lett.* **17**, 2697-2702 (2007).
23. " Kinesin spindle protein (KSP) inhibitors. Part 6: Design and synthesis of 3,5-diaryl-4,5-dihydropyrazole amides as potent inhibitors of the mitotic kinesin KSP."  
Coleman, Paul J.; Schreier, John D.; Cox, Christopher D.; Fraley, Mark E.; Garbaccio, Robert M.; Buser, Carolyn A.; Walsh, Eileen S.; Hamilton, Kelly; Lobell, Robert B.; Rickert, Keith; Tao, Weikang; Diehl, Ronald E.; South, Vicki J.; Davide, Joseph P.; Kohl, Nancy E.; Yan, Youwei; Kuo, Lawrence; Prueksaritanont, Thomayant; Li, Chunze; Mahan, Elizabeth A.; Fernandez-Metzler, Carmen; Salata, Joseph J.; Hartman, George D.  
*Bioorganic & Medicinal Chemistry Letters* , **17**(19), 5390-5395. (2007)
24. "Kinesin Spindle Protein (KSP) Inhibitors. 9. Discovery of (2*S*)-4-(2,5-Difluorophenyl)-*N*-[3*R*,4*S*]-3-fluoro-1-methylpiperidin-4-yl)-*N*-methyl-2-phenyl-2,5-dihydro-1*H*-pyrrole-1-carboxamide (MK-0731) for the Treatment of Taxane-Refractory Cancer."  
C.D. Cox, P.J. Coleman, M.J. Breslin, D.B. Whitman, R.M. Garbaccio, M.E. Fraley...Y. Yan, ...G.D. Hartman  
*J. Med. Chem.*, **51**, 4239-4252, (2008)

## **X. OTHER ACCOMPLISHMENTS**

### **INVITED LECTURES**

1. "Discovery of L-001154704: A Potent and Selective Inhibitor of the Mitotic Kinesin KSP".  
Merck Chemistry Council Conference, La Sapiniere, Quebec - Canada  
August 2004
2. "Intramolecular Catalysis of Amide Isomerization and its Role in Protein Folding".  
Towson State University, Towson, MD  
May 1998.

### **INVITED LECTURES (continued)**

3. "Discovery of Kinesin Spindle Protein Inhibitor MK-0731 for the Treatment of Taxane-Refractory Cancer".  
Johns Hopkins University  
April 30, 2008:

### **PRESENTATIONS**

1. "Discovery and optimization of kinesin spindle protein (KSP) inhibitors."  
Cox, Christopher D.; Coleman, Paul J.; Fraley, Mark E.; Garbaccio, Robert M.; Breslin, Michael J.; Whitman, David B.; Schreier, John D.; Hartman, George D.; Torrent, Maricel; Lobell, Rob; Buser, Carolyn; Tao, Weikang; Huber, Hans; Kohl, Nancy E.; Yan, Youwei; Kuo, Lawrence C.  
Abstracts of Papers, *233rd ACS National Meeting*, Chicago, IL, United States, March 25-29, 2007 (2007), MEDI-211.
2. "HTS to MK-0731: The Role of Fluorine in Optimization of Kinesin Spindle Protein (KSP) Inhibitors for the Treatment of Cancer."  
*Spring ACS National Meeting*, April 7, 2008 (2008)
3. "Chemical Strategies to Alter P-Glycoprotein Efflux of Drug Molecules"  
*Spring ACS National Meeting*, April 8, 2008 (2008)